

## Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application. The following listing provides the amended claims with deleted material crossed out and new material underlined to show the changes made.

1-19. (Canceled)

20. (Currently Amended) A method for creating a description of a user interface that transacts with a database having a data model ~~containing~~ comprising a plurality of entities, ~~the description being created using the data model of the database,~~ the method comprising:

a) receiving a request for the user interface from a client;

b) after receiving said request, classifying the plurality of entities into entity types, the classifying comprising:

iteratively determining whether ~~a first~~ each entity in the plurality of entities satisfies a ~~first~~ set of conditions; and

when an entity satisfies the set of conditions, classifying the first entity as a first particular entity type for which a user interface element is created within a particular window of a set of windows, wherein the user interface element provides access to said entity through the user interface ~~upon determining that the first entity satisfies the first set of conditions;~~

c) creating the description of the user interface with at least one user interface element based upon the classification of the plurality of entities; and

d) distributing the description to said client in order allow said client to generate user interface elements of said user interface that permits a user to transact with said database.

21. (Currently Amended) The method of claim 20 wherein:

each entity in the data model describes a type of data object associated with the database; and

the classifying produces the ~~first~~ particular entity type for a first group of data objects and a second different entity type for a second group of data objects, the data objects in the first group of data objects being updated in the database more frequently than the data objects in the second group of data objects.

22. (Currently Amended) The method of claim 21 wherein the ~~first~~ particular entity type is a Main entity type and the second different entity type is an Enumeration entity type.

23. (Previously Presented) The method of claim 20 wherein the description is a generic description configured to be interpreted in different platforms or operating environments.

24. (Previously Presented) The method of claim 20 wherein the description is in eXtensible Markup Language (XML).

25. (Previously Presented) The method of claim 20 wherein the classifying and creating are performed automatically without human assistance.

26. (Previously Presented) The method of claim 20 further comprising:

before the classifying, obtaining a current data model of the database, the current data model reflecting any changes to the database up to when the current data model is obtained, wherein a current description of the user interface is created using the current data model of the database.

27. (Previously Presented) The method of claim 20 further comprising:

after sending the description, retrieving data from the database, said data for populating at least one generated user interface element; and

sending the data to the client, said data sent prior to receiving any transaction from said user.

28-30. (Canceled)

31. (Currently Amended) A computer readable medium of a computer system implementing a server application, the computer readable medium storing a computer program which when executed by at least one processor of the computer system creates a description of a user interface that transacts with a database having a data model ~~containing~~ comprising a plurality of entities, ~~the description being created using the data model of the database,~~ the computer program comprising:

a) a set of instructions for classifying the plurality of entities into entity types, the instructions for classifying ~~comprising instructions for:~~

a set of instructions for iteratively determining whether a ~~first~~ each entity in the plurality of entities satisfies a ~~first~~ set of conditions; and

a set of instructions executed when an entity satisfies the set of conditions, said set of instructions for classifying the first entity as a first particular entity type for which a user interface element is created within a particular window of a set of windows, wherein the user interface element provides access to said entity through the user interface upon determining that the first entity satisfies the first set of conditions;

b) a set of instructions for creating the description of the user interface with at least one user interface element based upon the classification of the plurality of entities.

32. (Previously Presented) The computer readable medium of claim 31 wherein the description is a generic description configured to be interpreted in different platforms or operating environments.

33-34. (Canceled)

35. (Currently Amended) A method for generating a user interface on a client computer system that transacts with a database of a server computer system, said database having a data model ~~containing~~ comprising a plurality of entities, the method comprising:

sending a request for the user interface from the client computer system to the server computer system;

receiving a description of the user interface at the client computer system, the description being based upon a set of conditions that classify ~~classification of~~ the plurality of entities into entity types, said classification of the entities initiated by the

request, wherein when an entity satisfies the set of conditions, the classification comprises classifying ~~classification of a first~~ the entity as a ~~first~~ particular entity type for which a user interface element is created within a particular window of a set of windows in the description of the user interface, wherein the user interface element provides access to said entity through the user interface ~~upon determination that the first entity satisfies a first set of conditions~~; and

generating the user interface with at least one user interface element using the description of the user interface, wherein said user interface allows a user to transact with said database.

36. (Previously Presented) The method of claim 35 further comprising:

after the generating, receiving data from the database in order to populate the at least one user interface element of said user interface, said data received prior to receiving any transaction from said user.

37. (Currently Amended) The method of claim 35 further comprising, before the receiving:

sending preferences for the user interface, the preferences being utilized ~~in~~ creating the description to create a custom user interface description based on the specified preferences.

38. (Previously Presented) The method of claim 35 further comprising, before the receiving:

sending authentication information.

39-41. (Canceled)

42. (Currently Amended) A computer readable medium of a computer system, the computer readable medium storing a computer program which when executed by at least one processor of the computer system generates a user interface that transacts with a database of a server device having a data model ~~containing~~ comprising a plurality of entities, the computer program comprising:

a set of instructions for receiving a description of the user interface, the description being based upon a set of conditions that classify ~~classification~~ of the plurality of entities into entity types, wherein the classification comprises classification of an ~~first~~ entity as at least ~~one of~~ (i) a first entity type for which a user interface element is created within a first window of a set of windows in the description of the user interface in order to access said entity upon determining that the entity satisfies the set of conditions and (ii) a second entity type for which a user interface element is created within a second window of the set of windows in the description of the user interface in order to access said entity upon determining ~~determination~~ that the ~~first~~ entity does not satisfy the ~~satisfies a first~~ set of conditions; and

a set of instructions for generating the user interface with at least one user interface element using the description of the user interface.

43. (Previously Presented) The computer readable medium of claim 42 wherein the description of the user interface is created using a current data model of the

database, the current data model reflecting any changes to the database up to when the description is created.

44. (Currently Amended) The computer readable medium of claim 42, wherein the computer program further comprises:

a set of instructions for sending preferences for the user interface, the preferences being utilized ~~in creating the description~~ to create a custom user interface description based on the specified preferences.

45. (Canceled)

46. (Currently Amended) A system comprising:

a first computer system comprising (i) a database having a data model  
~~containing~~ comprising a plurality of entities,[[:]] and (ii) a server communicatively coupled to the database for creating a description of a user interface that transacts with the database, the description being based upon a set of conditions that classify  
~~classification of the plurality of entities into entity types,~~ wherein when an entity satisfies the set of conditions, the classification comprises classifying the ~~classification of a first entity as a first particular entity type for which a user interface element is created within a particular window of a set of windows in the description of the user interface, wherein the user interface element provides access to said entity through the user interface; and upon determination that the first entity satisfies a first set of conditions.~~

a second computer system comprising a client for receiving the description from the server and for generating the user interface as defined within the description.

47. (Previously Presented) The system of claim 46 wherein the server obtains a current data model of the database, the current data model reflecting any changes to the database up to when the current data model is obtained, a current description of the user interface being created using the current data model of the database.

48. (Previously Presented) The system of claim 46 wherein the server is in persistent communication with the database.

49. (Currently Amended) The system of claim 46 wherein the server of the first computer system is communicatively coupled to ~~a first~~ the client of the second computer system via a network and distributes the created description to the ~~first~~ client for enabling the ~~first~~ client to generate the user interface.

50. (Currently Amended) The system of claim 49 wherein the server of the first computer system provides the ~~first~~ client of the second computer system an only point of access to the database of the first computer system.

51. (Currently Amended) The system of claim 49 wherein the server of the first computer system is communicatively coupled, via the network, to a ~~second~~ client of a third computer system having a different platform or operating environment than the ~~first~~ client of the second computer system, and distributes the created description to the



~~second~~ client of the third computer system for enabling the ~~second~~ client of the third computer system to generate the user interface.

52. (Currently Amended) A computer comprising:

a) a description specifying a user interface for transacting with data sets of a data store;

b) a browser for communicatively coupling to a server application of a different computer that provides a single point of access to the data store; and

c) an application for generating user-interface elements of the user interface by using said description and by retrieving a data set from said data store to populate at least one user-interface element, said user-interface elements for displaying in said browser, at least one user interface element for receiving queries for the data store.

53. (Previously Presented) The computer of claim 52 further comprising a storage for storing the description, the browser, and the application.

54-55. (Canceled)

56. (Previously Presented) The computer of claim 52, wherein said browser is a web browser, wherein said application is a distributed application running on said web browser.

57. (Previously Presented) The computer of claim 56, wherein said distributed application is an applet.

58. (Currently Amended) A method comprising:

- a) receiving a first request for a first user interface of a first client to transact with a first data store;
- b) ~~supplying~~ generating a first description to supply to the first client in order for the first client to generate the first user interface;
- c) receiving a second request for a second user interface of a second client to transact with a second data store; and
- d) ~~supplying~~ generating a second description to supply to the second client in order for the second client to generate the second user interface, wherein said first and second descriptions differ.

59. (Currently Amended) A method of providing descriptions of user interfaces, the method comprising:

- a) receiving a first request from a first user, said first request comprising ~~authentication information for~~ a set of preferences specified by the first user;
- b) receiving a second request from a second user, said second request comprising ~~authentication information for~~ a set of preferences specified by the second user, the first and second users ~~having~~ specifying different ~~authentication information~~ sets of preferences; and
- c) ~~supplying~~ generating (i) a first description customized according to the first user's set of preferences to supply to the first user and (ii) a second description customized according to the second user's set of preferences to supply to the second user,

wherein the first and second descriptions are different based on the ~~authentication information of~~ set of preferences specified by the users.

60. (Previously Presented) The method of claim 59, wherein the first and second user interfaces comprises at least two user-interface elements for facilitating data transactions, wherein said first user interface comprises at least one more user-interface element than said second user interface.

61. (Previously Presented) The method of claim 59, wherein the first and second user interfaces are displayed in an application running on different computers.

62. (Previously Presented) The method of claim 60, wherein the application is a web browser.

63. (Previously Presented) The method of claim 58, wherein the first and second data stores are the different data stores, wherein the first request is received from a first user while the second request is received from a second user different than the first, wherein the first description is supplied to the first user while the second description is supplied to the second user.

64.-74. (Canceled)

75. (Previously Presented) The method of claim 20, wherein said request from said client initiates the classification of the entities into entity types.

76. (Previously Presented) The method of claim 20, wherein each entity corresponds to at least one table of said database.

77. (Previously Presented) The computer readable medium of claim 31 further comprising a set of instructions for sending said description to said client in order allow said client to generate elements of said user interface from said description, said user interface elements allowing a user of said client to transact with said database.

78. (Previously Presented) The computer readable medium of claim 31, wherein an entity describes a data object of said database through properties comprising at least one of an attribute and a relationship.

79. (Previously Presented) The computer readable medium of claim 78, wherein the entity corresponds a table of said database.

80. (Currently Amended) A computer implemented method of generating a user interface to access a database, said method comprising:

- a) from a client, receiving a request for the user interface;
- b) in response to said request, obtaining a current data model describing a plurality of tables of the database;  
creating automatically generating a description of said user interface based on the current data model;
- c) sending said description to said client;
- d) from said client, receiving a request for data from at least one table of the database to populate at least one user interface element of said user interface;
- e) retrieving said data from the database ~~a data store~~; and

⌘ sending said data to said client in order to allow said client to populate said user interface element, said client enabled thereupon to generate said user interface which permits a user of said client to transact with said database ~~data store~~.

81. (Currently Amended) The method of claim 80 further comprising:

after sending said data to said client, receiving, from the user of said client, a query for data stored in said database ~~data store~~.

82. (Previously Presented) The method of claim 81, wherein said request for data to populate the user interface element is received automatedly from the client prior to receiving a transaction or a query from the user of said client.

83. (Currently Amended) The method of claim 80 further comprising:

~~obtaining a data model of said data store;~~

wherein said creating said description comprises dynamically generating a description of said user interface based on an analysis of said data model in response to the request for the user interface from said client.

84. (Currently Amended) A computer implemented method of providing a user interface, said method comprising:

a) obtaining a data model of a database representing an organization of a plurality of data entities of the database;

b) receiving a request for a user interface from a client;

c) in response to the request, dynamically creating a description of said user interface ~~based on an analysis of said data model~~ (i) by using a set of heuristics to select a set of data entities from the plurality of data entities for access by the client

through a primary window of the description based on a relevancy of the set of data entities to the client, and (ii) by providing a set of tasks operable on each data entity; and

d) sending said description to said client in order to allow said client to generate said user interface from said description, said user interface comprising user interface elements that ~~permits~~ permit a user of said client to implement one of said tasks in order to transact with said database in a manner conforming to said data model.

85. (Previously Presented) The method of claim 84, wherein the obtaining the data model comprises at least one of:

extracting the data model from said database, and

building the data model from data that exists in said database.

86. (Currently Amended) The method of claim 84, ~~wherein said data model comprises a plurality of entities~~, wherein each data entity corresponds to at least one table of said database.

87. (Currently Amended) A computer implemented method of generating a user interface, said method comprising:

a) sending a request for the user interface to a server, said request comprising a set of user preferences;

b) in response to the request, receiving a computer generated description specifying a user interface that is customized according to the set of user preferences, said user interface for accessing ~~of~~ a data store from the server; and

c) generating the user interface, said generating ~~said user interface~~ comprising:

i. creating user interface elements for the user interface based on the description,

ii. from the server, receiving data stored in said data store, and

iii. populating at least one user interface element with said data,

wherein said generated user interface allows a user to interact with said data store using said user interface elements.

88. (Previously Presented) The method of claim 87, wherein generating the user interface further comprises:

before receiving the data stored in said data store, automatically sending a request for the data stored in said data store in order to populate the user interface element.